

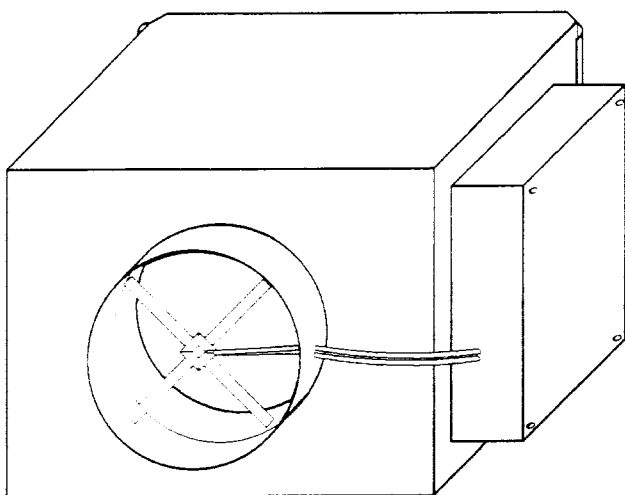


**AIR ZONE INDUSTRIES
INTERNATIONAL, INC.**

Series: RSZ TERMINAL UNITS

Features & Benefits

The RSZ Terminal Unit is a single duct air valve for use in constant air volume (CAV) or variable air volume (VAV). Designed to perform as a cooling only unit or cooling with reheat. This versatile high performance terminal unit is available eleven models from 45 to 7,100 cfm.



Technical Data

- ◆ Round inlets 6" thru 16"
- ◆ Rectangular inlet on 22"
- ◆ Multi Point Inlet Sensor
- ◆ S & Drive on all outlets
- ◆ Hot water reheat coils
- ◆ Optional electric reheat
- ◆ Sound attenuator section
- ◆ Multiple outlet assembly

Specifications:

The unit casing is 22 gauge galvanized steel with 1/2" dual density fiberglass liner. Optional features include 20 gauge casing, 1" fiberglass liner, foil jacketed insulation and double wall casings with solid or perforated liner. The control air damper assembly is constructed of heavy gauge galvanized steel blade rotating in bearings with lifetime lubrication on a solid plated shaft.

The blade incorporates a flexible gasket for tight seal and low leakage (approximately 1%). The casing, liner, damper assembly and all options meet UL-181 and NFPA-90A requirements

SINGLE DUCT TERMINAL UNITS

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Series RSZ Terminal Units are designed for use in single zone duct systems operating in low or medium pressure ranges.

RSZ Terminal Units are available with hot water, steam or electric reheat. Options include attenuator section, a multi-outlet attenuator, optional outlets to match the inlet connection, hospital liner or double wall construction and have a wide range of control options available.

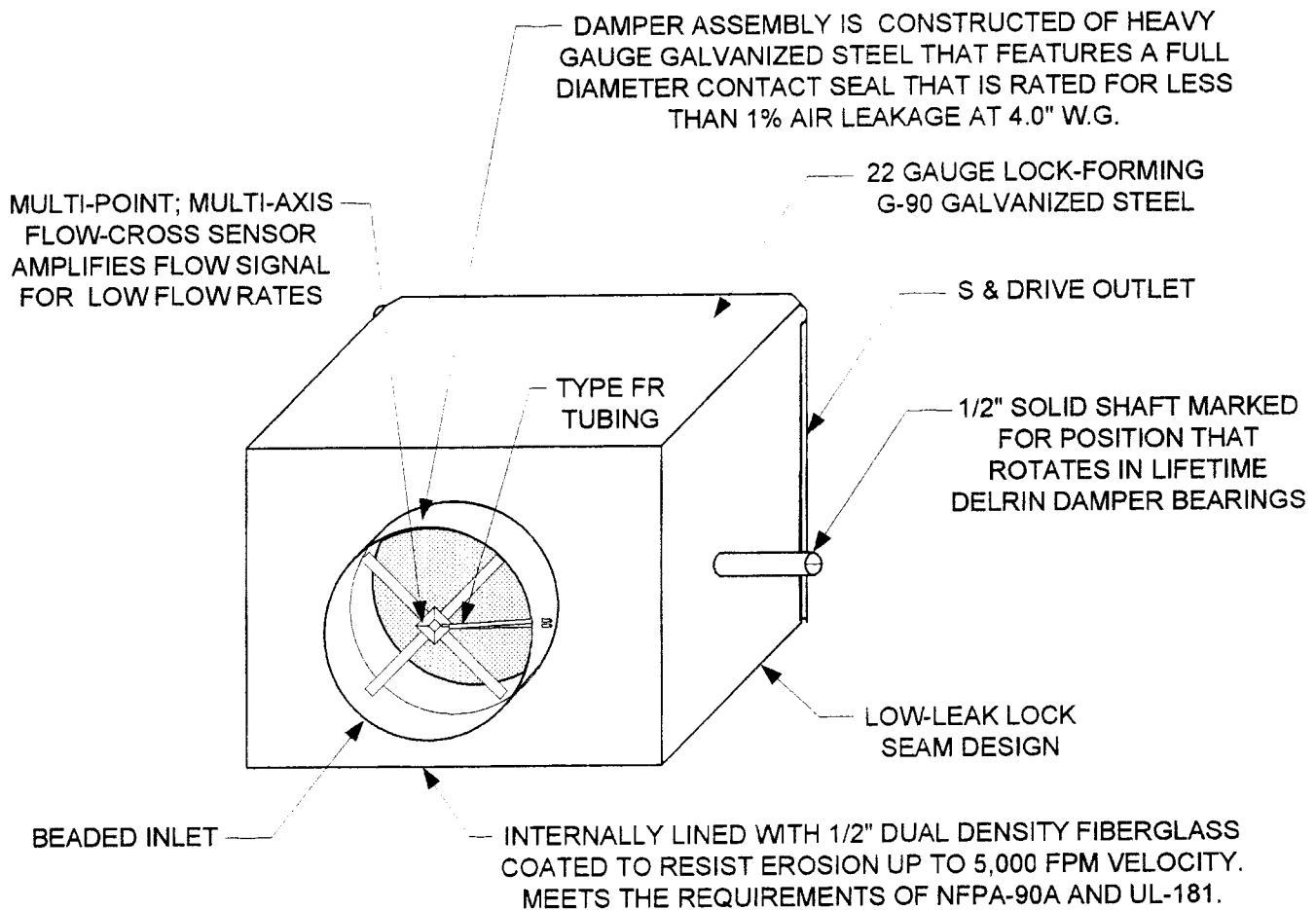
The fundamental purpose of the Single Duct Terminal is to regulate the airflow in a single zone system. This basic unit shown herein is a fundamental component of any quality air system.

MODELS:

- RSZO** No Controls or Controls by others
- RSZA** Analog Pressure Independent Electronic Controls
- RSZC** DDC Controls
- RSZD** Pneumatic Pressure Dependent Controls
- RSZE** Pressure Dependent Electric Controls
- RSZS** Pneumatic Single Function Pneumatic Controls
- RSZM** Pneumatic Multi-Function Controls

STANDARD RSZ TERMINALS OFFERS MANY QUALITY FEATURES

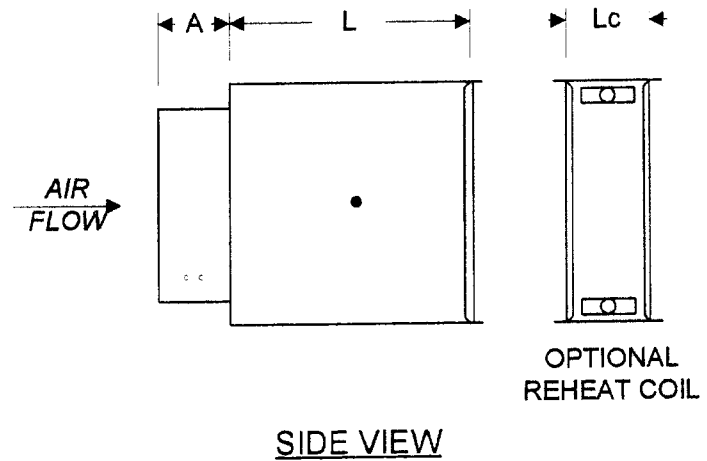
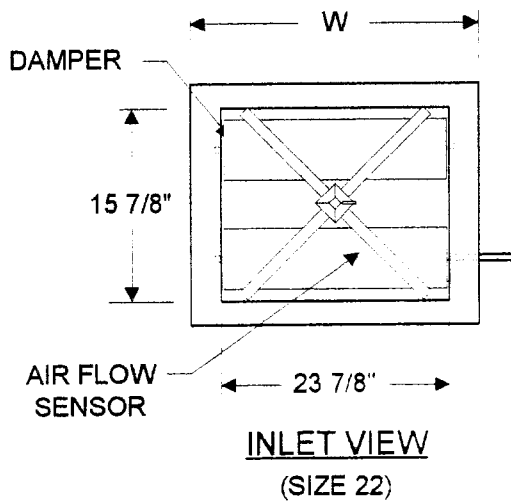
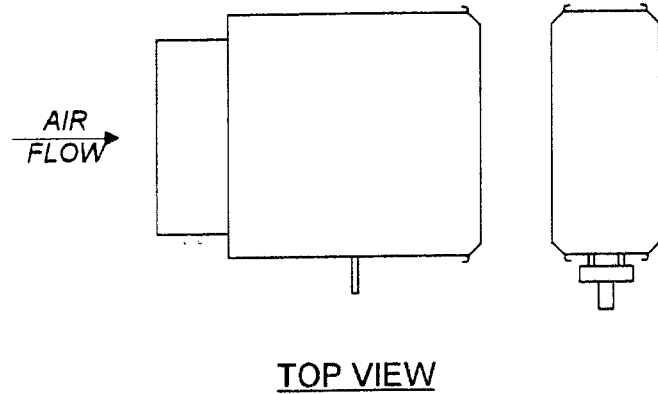
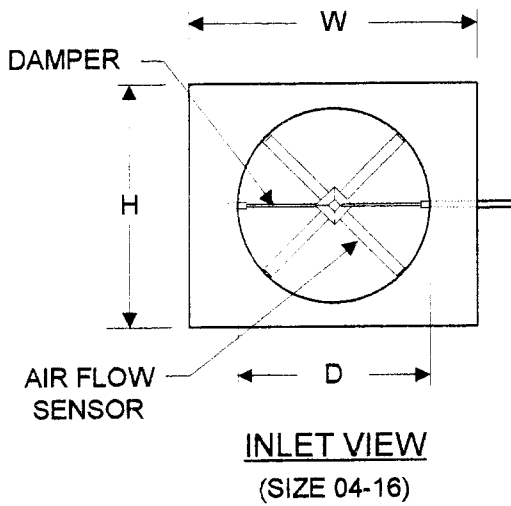
- ◆ SIZE 4" THRU 22"
- ◆ FLOW-CROSS INLET SENSOR
- ◆ LOW-LEAK DESIGN
- ◆ DOUBLE WALL OPTION
- ◆ HOT WATER REHEAT
- ◆ ELECTRIC REHEAT
- ◆ DDC; ANALOG OR PNEUMATIC



DESIGN FEATURES

- Single Zone Cooling or Heating Terminal Units
- Reheat with Hot Water, Electric or Steam
- Attenuator & Multiple Outlet Plenum Optional
- Pneumatic, Electric, Analog Electronic or DDC
- Single Wall Hospital Liner or Double Wall Design
- Controls by Factory or By Others Factory Mounted

RSZO TERMINALS



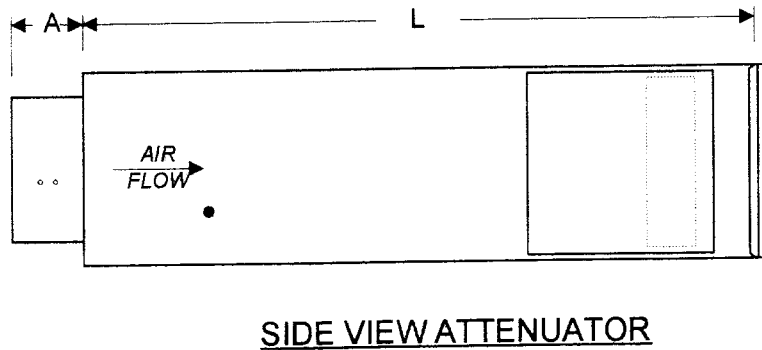
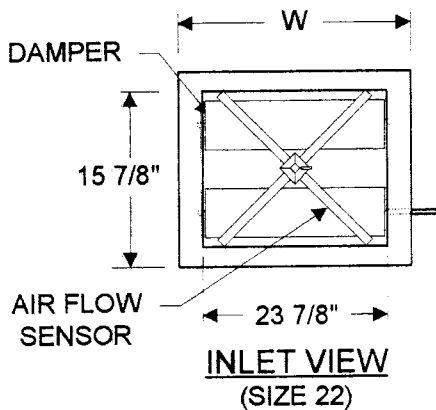
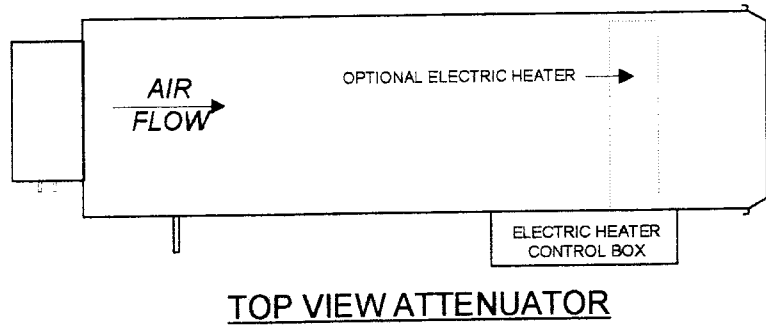
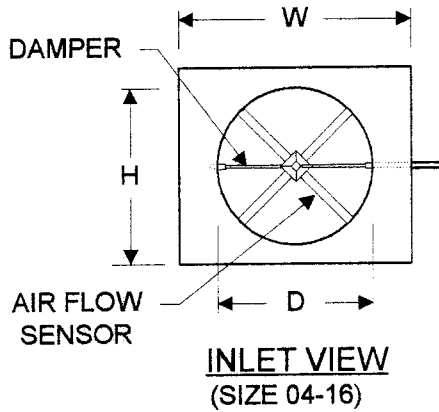
RSZ DIMENSIONAL DATA

MODEL SIZE	MAX CFM	DIMENSIONS IN INCHES					
		L	W	H	A	D	Lc
4	230	15 1/2	12	8	5 3/8	3 7/8	5
5	360	15 1/2	12	8	5 3/8	4 7/8	5
6	520	15 1/2	12	8	3 3/8	5 7/8	5
7	710	15 1/2	12	10	3 3/8	6 7/8	5
8	925	15 1/2	12	10	3 3/8	7 7/8	5
9	1200	15 1/2	14	12 1/2	3 3/8	8 7/8	5
10	1450	15 1/2	14	12 1/2	3 3/8	9 7/8	5
12	2100	15 1/2	16	15	3 3/8	11 7/8	5
14	2900	15 1/2	20	17 1/2	3 3/8	13 7/8	5
16	3700	15 1/2	24	17 1/2	3 3/8	15 7/8	5
22	7100	15	38	17 1/2	3 3/8	SEE ABOVE	5

Notes:

1. Dimension "Lc" is shown for standard 1 or 2 row coils, this dimension may be larger.
2. Dimension "Lc" for 3 or 4 row coils is approximately 7 1/2".

Series: RSZ-04 thru 22 Terminal Units with Attenuator



STANDARD SPECIFICATIONS

Casing: Minimum 22 gauge G90 galvanized steel reinforced for maximum rigidity and sealed for minimum leakage (less than 2%). Units are standard with 1"-1.5# density internal liner.

Primary Air Valve: Constructed of a galvanized rolled steel cylinder with a high density full diameter seal sandwiched between two bonded blades that pivot on zinc plated solid shafts. All hardware is electro-plated and bearings are lifetime lubricated bronze type. Rated at 1% up to 4.0" WG.

Inlet Sensor: Multi-Point, Multi-Axis, non-ferrous calibrated inlet sensors are rigidly mounted at the unit inlet.

Electric Heater: Open wire UL listed constructed with nickle-chromium wire, ceramic bushings, crimped terminals and a galvanized steel casing. Heaters are complete with primary and secondary O/L protection, air flow pressure switch, contactors per stage, 24 volt transformer and terminal strips for high and low voltage.

RSZ DIMENSIONAL DATA

MODEL SIZE	MAX CFM	DIMENSIONS IN INCHES				
		L	W	H	A	D
04	230	39 1/2	12	8	5 3/8	3 7/8
05	360	39 1/2	12	8	5 3/8	4 7/8
06	520	39 1/2	12	8	3 3/8	5 7/8
07	710	39 1/2	12	10	3 3/8	6 7/8
08	925	39 1/2	12	10	3 3/8	7 7/8
09	1200	39 1/2	14	12 1/2	3 3/8	8 7/8
10	1450	39 1/2	14	12 1/2	3 3/8	9 7/8
12	2100	39 1/2	16	15	3 3/8	11 7/8
14	2900	39 1/2	20	17 1/2	3 3/8	13 7/8
16	3700	39 1/2	24	17 1/2	3 3/8	15 7/8
22	7100	39 1/2	38	17 1/2	3 3/8	SEE ABOVE

Series: RSZO, RSZD, RSZM, RSZA

Noise Criteria Data

		Noise Criteria Data							
Model Size	CFM	Discharge							
		ΔPs				ΔPs			
		0.5'	1.0'	2.0'	3.0'	0.5'	1.0'	2.0'	3.0'
04	75	-	-	-	-	-	-	-	2'
	125	-	-	20	23	-	-	25	28
	175	-	20	25	28	-	23	29	33
	225	-	24	29	32	2'	27	33	36
06	175	-	-	-	-	-	-	20	22
	225	-	-	-	22	-	-	23	26
	300	-	-	23	26	-	23	27	30
	350	-	20	26	28	20	25	29	32
	400	-	23	28	31	22	27	31	34
	450	-	24	29	32	24	29	33	36
08	350	-	-	-	-	-	-	-	21
	400	-	-	-	-	-	-	20	23
	450	-	-	-	20	-	-	22	24
	500	-	-	-	22	-	20	24	26
	600	-	-	21	24	-	23	26	29
	700	-	-	23	27	21	25	29	31
10	550	-	-	-	-	-	20	24	28
	600	-	-	-	-	-	21	24	29
	700	-	-	-	-	22	24	26	29
	800	-	-	-	20	25	27	29	30
	1000	-	-	21	25	29	31	33	34
	1200	-	-	25	29	32	34	36	37
14	1000	-	-	-	-	-	-	24	29
	1200	-	-	-	-	22	24	27	30
	1500	-	-	-	20	27	30	32	34
	1800	-	-	-	22	32	35	37	39
	2100	-	-	-	23	36	39	41	42
	2400	-	-	21	25	40	42	44	46
22	3000	21	25	29	32	24	29	33	36
	3500	23	27	31	34	27	32	36	39
	4000	25	29	33	36	30	35	39	42
	5000	28	32	36	39	34	39	44	47
	6000	31	35	39	42	38	43	48	51
	7000	33	37	41	44	42	46	51	54
8000	35	39	43	46	44	49	54	57	

		Noise Criteria Data							
Inlet Size	CFM	Radiated							
		ΔPs				ΔPs			
		0.5'	1.0'	2.0'	3.0'	0.5'	1.0'	2.0'	3.0'
05	125	-	-	-	-	-	-	-	-
	175	-	-	-	23	-	-	-	-
	250	-	-	25	28	-	-	23	26
	350	-	24	30	33	21	26	31	34
07	250	-	-	-	-	-	-	20	23
	300	-	-	-	21	-	-	22	26
	350	-	-	20	24	-	-	24	27
	400	-	-	23	26	-	21	26	29
	500	-	20	27	30	-	23	28	31
	600	-	23	30	34	20	25	30	34
09	450	-	-	-	22	-	-	22	26
	500	-	-	-	23	-	-	23	27
	600	-	-	21	25	-	22	25	28
	700	-	-	22	26	22	25	28	29
	800	-	-	23	27	24	27	30	31
	900	-	20	24	28	26	29	32	33
12	75	-	-	-	20	-	-	24	29
	125	-	-	-	21	22	24	27	30
	175	-	-	-	22	27	30	32	34
	225	-	-	21	25	36	39	41	42
	275	-	-	22	26	40	42	44	46
	325	-	-	23	27	45	48	50	52
16	1400	-	-	-	-	-	-	23	27
	1600	-	-	-	-	-	20	25	28
	2000	-	-	-	-	-	23	28	31
	2400	-	-	-	21	20	26	31	34
	2800	-	-	-	22	23	28	34	37
	3200	-	-	21	24	25	30	36	39
4000	-	-	25	28	28	34	39	42	

- ΔPs is the difference in static pressure from the inlet to the outlet.
- A dash symbol (-) indicates the NC value is less than 20.
- All sound data shown herein are based on test conducted in accordance with ARI-880-94.

Octave Band Sound Attenuation Factors:

Radiated Sound	Octave Bands							Notes
	2	3	4	5	6	7		
Environmental Effect	3.00	2.00	1.00	1.00	1.00	1.00	1	
Ceiling Effect	9	10	12	14	15	15	2	
Room Effect	9	10	11	12	13	14	3	
Total dB Reduction	21	22	24	27	29	30		

Discharge Sound	Octave Bands							Notes
	2	3	4	5	6	7		
Environmental Effect	3	2	1	1	1	1	1	
Duct Lining	1	3	8	21	20	12	4	
End Reflection	11	6	2	0	0	0	5	
5Ft. of 8" Flex	6	10	17	19	19	12	6	
Room Effect	9	10	11	12	13	14	3	
Total dB Reduction	30	31	39	53	53	39		

Inlet Size	dB
07, 08	3
09	5
10	7
12	8
14	10
16	11
22	14

The dB credits shown herein per octave band have been used in the calculations of NC values for 300 CFM flow division.

Notes:

1. Per ARI-885-90.
2. 5/8" Tile-35#/CF Mineral Fiber.
3. 3000CF Space, 10' from source.
4. 5' of 1" Fiberglass duct lining.
5. 8" Termination to diffuser.
6. Vinyl core flex.

Series: RSZO, RSZD, RSZM, RSZA

Minimum Pressure Data

Model Size	CFM	Vel. Press Δ Vps	Basic Unit Δ Ps	+ Atten. Δ Ps	+ Multi-Out Δ Ps	+ Rd. Out Δ Ps	+ 1R Coil Δ Ps	+ 2R Coil Δ Ps	+ 3R Coil Δ Ps	+ 4R Coil Δ Ps	+ E. Heat Δ Ps
04	100	0.08	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.02
	150	0.18	0.03	0.03	0.03	0.04	0.05	0.06	0.08	0.09	0.03
	200	0.32	0.05	0.06	0.06	0.06	0.08	0.11	0.14	0.16	0.06
	225	0.41	0.06	0.07	0.07	0.08	0.10	0.14	0.17	0.21	0.07
05	150	0.07	0.03	0.03	0.03	0.04	0.05	0.06	0.08	0.09	0.03
	200	0.13	0.05	0.06	0.06	0.06	0.08	0.11	0.14	0.16	0.06
	300	0.29	0.11	0.13	0.13	0.14	0.18	0.25	0.31	0.37	0.13
	350	0.39	0.15	0.17	0.18	0.19	0.24	0.33	0.42	0.50	0.18
06	200	0.06	0.04	0.05	0.06	0.07	0.07	0.10	0.13	0.16	0.06
	300	0.13	0.10	0.11	0.13	0.16	0.17	0.23	0.30	0.36	0.13
	400	0.24	0.18	0.20	0.22	0.28	0.30	0.41	0.53	0.64	0.23
	500	0.37	0.28	0.31	0.35	0.44	0.46	0.65	0.82	0.99	0.36
07	300	0.07	0.05	0.06	0.06	0.07	0.09	0.12	0.15	0.18	0.07
	400	0.13	0.09	0.10	0.11	0.13	0.15	0.21	0.27	0.32	0.13
	600	0.28	0.20	0.22	0.25	0.30	0.34	0.47	0.60	0.73	0.28
	650	0.33	0.24		0.30	0.35	0.40	0.55	0.70	0.86	0.33
08	350	0.05	0.04	0.04	0.05	0.07	0.09	0.13	0.18	0.22	0.10
	500	0.11	0.08	0.09	0.10	0.13	0.18	0.27	0.36	0.45	0.20
	700	0.21	0.16	0.17	0.19	0.26	0.35	0.52	0.70	0.88	0.39
	900	0.34	0.26	0.28	0.32	0.43	0.57	0.86	1.16	1.45	0.64
09	500	0.07	0.06	0.06	0.07	0.09	0.10	0.15	0.19	0.24	0.09
	650	0.12	0.09	0.10	0.12	0.14	0.18	0.25	0.33	0.40	0.15
	800	0.18	0.14	0.16	0.18	0.22	0.27	0.38	0.49	0.61	0.23
	1050	0.31	0.25	0.27	0.31	0.38	0.46	0.65	0.85	1.05	0.39
10	600	0.06	0.05	0.05	0.06	0.08	0.11	0.18	0.24	0.31	0.13
	800	0.11	0.08	0.09	0.10	0.13	0.20	0.32	0.43	0.55	0.23
	1100	0.20	0.15	0.17	0.19	0.25	0.38	0.60	0.81	1.03	0.04
	1400	0.33	0.25	0.28	0.31	0.41	0.62	0.97	1.32	1.67	0.70
12	900	0.64	0.05	0.06	0.07	0.09	0.13	0.20	0.27	0.34	0.12
	1200	0.11	0.09	0.10	0.12	0.15	0.24	0.36	0.49	0.61	0.21
	1500	0.18	0.15	0.16	0.18	0.24	0.37	0.56	0.76	0.96	0.33
	2000	0.31	0.26	0.29	0.33	0.42	0.65	1.00	1.35	1.70	0.59
14	1200	0.06	0.05	0.06	0.07	0.09	0.12	0.18	0.23	0.29	0.09
	1600	0.11	0.09	0.10	0.12	0.15	0.21	0.31	0.42	0.52	0.16
	2000	0.18	0.14	0.16	0.19	0.24	0.32	0.49	0.65	0.81	0.25
	3000	0.40	0.32	0.35	0.43	0.53	0.73	1.10	1.46	1.83	0.56
16	1500	0.06	0.04	0.05	0.06	0.08	0.11	0.18	0.24	0.30	0.08
	2000	0.10	0.08	0.09	0.11	0.13	0.20	0.31	0.42	0.53	0.14
	3000	0.23	0.18	0.20	0.25	0.30	0.46	0.70	0.95	1.20	0.32
	4000	0.40	0.32	0.35	0.44	0.53	0.81	1.25	1.70	2.13	0.56
22	2500	0.04	0.01	0.02	NR	NR	0.09	0.16	0.24	0.31	0.08
	4000	0.10	0.04	0.04	NR	NR	0.24	0.42	0.60	0.78	0.20
	6000	0.22	0.08	0.09	NR	NR	0.54	0.94	1.35	1.76	0.46
	8000	0.38	0.14	0.15	NR	NR	0.95	1.67	2.40	3.13	0.81

Notes:

1. ΔPs is the difference in static pressure across the terminal unit from the inlet to the outlet.
2. To obtain the total pressure add the velocity pressure to the static pressure loss (ΔPs) of the terminal arrangement.
3. Example: The ΔPt for a 10" Basic Terminal @ 800 CFM is 0.21 (ΔVps) + 0.16 (ΔPs) = 0.37.

Series: RSZO, RSZD, RSZM, RSZA

Discharge Sound Power Data

Model Size	CFM	Min ΔPs	Sound Power Octave Bands																							
			0.50 DPs					1.00 DPs					2.00 DPs					3.00 DPs								
			2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
04	75	0.01	57	49	43	38	36	28	51	61	48	44	42	35	65	57	53	49	48	42	67	60	56	52	52	46
	125	0.02	62	56	48	44	41	34	66	60	54	49	47	41	70	64	59	55	53	47	72	66	62	58	57	51
	175	0.04	65	60	52	47	44	38	69	64	57	53	50	45	73	68	62	58	57	51	75	71	65	60	55	55
	225	0.06	68	63	55	50	46	41	72	67	60	55	53	47	75	71	65	61	59	78	74	68	64	63	58	58
05	125	0.02	56	49	43	38	35	30	60	54	48	43	41	37	64	59	54	48	47	45	67	62	57	51	51	49
	175	0.04	60	53	47	42	39	34	64	58	52	47	45	41	68	63	58	52	51	48	70	66	61	55	55	52
	250	0.08	63	58	52	47	43	37	67	63	57	52	49	45	71	68	62	57	55	52	74	71	65	59	59	56
	300	0.11	65	60	54	49	45	39	69	65	59	54	51	47	73	70	64	59	57	54	76	73	67	62	61	58
	350	0.15	67	62	56	51	47	41	71	67	61	56	53	48	75	72	66	61	59	55	77	75	69	64	62	60
06	175	0.03	58	51	41	37	35	29	61	55	47	42	40	36	64	59	52	47	46	43	66	62	55	50	50	47
	225	0.06	61	54	45	40	37	31	64	59	50	45	43	38	67	63	56	50	49	45	69	65	59	53	52	49
	300	0.10	64	58	49	44	39	33	67	62	54	49	45	40	71	67	60	54	51	47	73	69	63	57	55	51
	350	0.14	66	60	51	46	41	35	69	64	56	51	47	42	73	69	62	56	53	49	75	71	65	59	56	53
	400	0.18	67	62	53	47	42	36	71	66	58	52	48	43	74	70	64	57	54	50	76	73	67	60	57	54
	450	0.22	69	63	54	49	43	37	72	68	60	54	49	44	75	72	65	59	55	51	77	74	69	62	58	55
	500	0.28	70	65	56	50	44	38	73	69	61	55	50	45	77	73	67	60	56	52	79	76	70	63	59	56
07	250	0.04	59	51	46	41	38	33	64	57	51	44	44	40	68	62	56	47	49	47	71	65	58	49	53	51
	300	0.05	60	54	49	44	40	35	65	59	53	47	46	42	69	65	58	51	51	48	72	68	61	52	54	53
	350	0.07	61	56	51	47	42	36	66	62	56	50	47	43	70	67	61	53	53	50	73	70	63	55	56	54
	400	0.09	62	58	53	49	43	38	66	64	58	53	49	45	71	69	63	56	54	51	73	72	65	58	58	56
	500	0.14	63	62	56	53	46	40	68	67	61	57	51	47	72	73	66	60	57	54	75	76	69	62	60	58
	600	0.20	64	65	59	57	48	42	69	70	64	60	53	49	73	75	69	63	59	56	76	78	71	65	62	60
	650	0.24	65	66	60	58	49	43	69	71	65	61	54	50	74	77	70	64	60	57	75	80	73	66	63	61
08	350	0.04	59	51	48	46	38	32	64	56	53	51	44	39	68	61	57	56	50	45	71	63	60	59	53	49
	400	0.05	60	53	60	48	40	34	64	58	54	53	45	40	69	62	59	58	51	47	72	65	62	60	55	51
	450	0.06	60	54	51	49	41	35	65	59	56	54	47	41	69	64	61	59	52	48	72	67	63	62	56	52
	500	0.08	61	55	53	50	42	36	65	61	57	55	48	43	70	65	62	60	54	49	73	68	65	63	57	53
	600	0.11	62	58	55	52	44	38	66	63	60	57	50	45	71	68	64	62	55	51	74	71	67	65	59	55
	700	0.16	62	60	57	54	46	40	67	65	62	58	51	46	72	70	66	63	57	53	74	73	69	66	60	57
09	450	0.05	61	55	51	48	45	40	64	61	57	54	51	47	68	67	63	60	58	54	70	71	67	64	61	58
	500	0.06	62	56	52	48	45	41	66	62	58	55	52	48	69	68	64	61	58	54	71	71	68	65	62	58
	600	0.08	65	57	53	49	46	42	68	63	59	56	53	48	72	69	65	62	59	55	74	73	69	65	63	59
	700	0.11	67	58	54	50	47	42	70	64	60	57	53	49	74	70	66	63	60	56	76	74	70	67	64	60
	800	0.14	69	59	55	51	48	43	72	65	61	58	54	50	76	71	67	64	61	57	78	75	71	68	64	61
	900	0.18	70	60	56	52	48	44	74	66	62	58	55	51	77	72	68	65	61	57	79	76	72	68	65	61
	1000	0.22	72	61	57	53	49	44	75	67	63	59	55	51	79	73	69	65	62	58	81	76	73	69	65	62
10	550	0.04	58	52	48	43	39	33	63	56	52	46	44	39	68	61	55	50	49	44	71	64	58	52	51	47
	600	0.05	59	53	50	44	40	35	65	58	53	48	45	40	70	62	57	52	50	45	72	65	59	54	53	49
	700	0.05	62	55	52	47	43	37	67	60	56	51	47	42	72	65	59	54	52	48	75	67	62	56	55	51
	800	0.08	64	57	54	49	45	39	69	62	58	53	49	45	74	67	62	57	54	50	77	69	64	59	57	53
	1000	0.12	68	61	58	53	48	43	73	65	62	57	53	48	78	70	65	61	58	53	81	73	67	63	61	57
	1200	0.18	71	64	61	56	51	45	73	68	65	60	56	51	81	73	68	64	61	56	84	76	70	66	63	59
	1400	0.24	74	66	63	59	53	48	79	71	67	63	58	53	84	75	71	67	63	59	87	78	73	69	66	52
12	800	0.04	61	57	53	47	45	40	64	63	58	54	52	47	68	69	63	61	58	55	70	73	66	66	62	59
	900	0.05	62	58	54	47	46	40	66	64	59	55	52	48	69	70	64	62	59	55	71	73	67	66	63	60
	1000	0.07	64	58	55	48	46	41	67	64	60	55	53	48	71	71	65	62	59	56	73	74	68	67	63	60
	1200	0.09	66	59	57	49	47	42	70	66	62	56	54	49	73	72	67	63	60	56	75	75	70	68	64	61
	1500	0.15	69	61	59	50	48	43	73	67	64	57	55	50	76	73	69	65	61	57	78	77	72	69	65	62
	1800	0.21	71	62	61	51	49	44	75	68	66	58	56	51	79	74	71	65	62	58	81	78	73	70	66	63
	2000	0.26	73	63	62	51	50	44	76	69	67	59	56	51	80	75	72	66	63	59	82	79	74	70	66	63

See the following page for additional models.

Inlet Size	CFM	Min ΔPs	Sound Power Octave Bands																											
			0.50 DPs							1.00 DPs							2.00 DPs							3.00 DPs						
			2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7				
14	1000	0.04	61	54	54	50	46	41	65	60	60	57	53	49	68	66	65	64	60	57	70	70	68	68	64	62				
	1200	0.05	63	56	56	51	46	42	67	62	61	58	53	51	71	68	66	65	61	59	73	71	69	69	65	63				
	1500	0.08	66	58	57	52	47	44	70	64	62	59	54	52	74	70	68	66	61	60	76	74	71	70	65	65				
	1800	0.12	69	60	58	53	47	45	72	66	64	60	55	53	76	72	69	66	62	61	78	75	72	70	66	66				
	2100	0.16	71	61	59	53	48	46	74	67	65	60	55	54	78	73	70	67	62	62	80	77	73	71	66	67				
	2400	0.21	72	62	60	54	48	47	76	68	66	61	55	55	80	74	71	68	63	63	82	78	74	72	67	67				
	3000	0.32	75	64	62	55	49	48	79	71	67	62	56	56	83	77	72	69	63	64	85	80	75	73	67	69				
16	1400	0.04	62	57	55	50	46	40	62	62	60	57	53	48	71	68	65	64	61	55	73	71	68	68	65	60				
	1600	0.05	64	59	56	51	47	41	68	64	61	58	54	49	72	69	66	65	61	56	75	72	69	69	66	61				
	2000	0.08	67	61	59	52	49	43	71	66	64	59	56	50	76	71	69	66	63	58	78	74	72	71	67	62				
	2400	0.11	69	62	60	54	50	44	74	67	65	61	57	51	78	73	70	68	64	59	81	76	73	72	68	63				
	2800	0.15	71	64	62	55	51	45	76	69	67	62	58	52	80	74	72	69	65	60	83	77	75	73	69	64				
	3200	0.20	73	65	63	56	52	46	78	70	68	63	59	53	82	75	73	70	66	61	87	78	76	74	70	65				
	4000	0.32	76	67	65	58	53	47	81	72	70	65	60	55	85	77	76	72	67	62	88	80	78	76	72	67				
22	3000	0.02	74	71	69	66	63	59	77	74	74	71	68	63	81	78	78	76	73	68	83	80	80	79	76	71				
	3500	0.03	76	72	71	67	64	60	79	76	75	72	69	64	83	79	79	77	74	69	84	81	81	80	77	72				
	4000	0.04	77	73	71	67	65	61	81	77	76	72	70	65	84	80	80	77	75	70	86	82	82	80	78	73				
	5000	0.06	80	75	73	69	66	63	83	78	77	74	71	67	86	82	81	79	76	72	88	84	84	82	79	75				
	6000	0.08	82	76	74	70	68	64	85	80	78	75	73	69	88	84	82	80	78	73	90	86	85	83	81	76				
	7000	0.11	84	78	75	71	69	65	87	81	79	76	74	70	90	85	84	81	79	74	92	87	86	84	82	77				
	8000	0.14	85	79	76	71	70	66	88	82	80	76	75	71	92	86	84	81	80	76	94	88	87	84	83	78				

ARI Certification Points

Model Size	Rated CFM	Min. ΔPs	Sound Power @ 1.5Ps						
			2	3	4	5	6	7	
04	150	0.05	70	65	59	54	53	47	
05	250	0.10	70	66	60	55	53	49	
06	400	0.18	73	69	61	55	51	47	
07	550	0.17	71	72	65	60	55	52	
08	700	0.16	70	68	64	61	55	50	
09	900	0.18	76	69	66	62	59	55	
10	1100	0.15	78	70	65	61	57	53	
12	1600	0.17	75	71	67	62	59	55	
14	2100	0.16	76	71	68	64	59	59	
16	2800	0.16	78	72	70	66	62	57	
22	5300	0.06	86	81	80	77	75	70	

Adjustments for Optional Attenuators*

Model Size	Octave Bands						
	2	3	4	5	6	7	
04, 05, 06	2	1	5	13	12	8	
07, 08	2	2	5	12	11	8	
09, 10	1	2	4	10	9	7	
12	1	2	4	9	7	6	
14	1	2	3	8	6	5	
16	1	1	3	8	6	5	
22	1	1	3	8	6	5	

Select the desired unit size and subtract the value shown under each octave band above from the Discharge Sound Power data shown above. The calculated values are then used to determine the discharge NC.

* Based on Ch. 42 of ASHRAE 1991 HVAC Applications Handbook.

- ΔPs is the difference in static pressure from the inlet to the discharge.
- Sound power levels are shown in decibels, re. 10⁻¹² watts.
- Discharge sound power is the noise emitted from the unit discharge into the downstream duct.
- All sound data is based on test conducted in accordance with ARI 880-94.

Inlet Size	CFM	Min ΔPs	Sound Power Octave Bands																											
			0.50 DPs							1.00 DPs							2.00 DPs							3.00 DPs						
			2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7				
04	75	0.01	50	39	30	25	22	18	55	43	33	28	26	25	60	47	36	30	30	31	62	49	38	31	32	35				
	125	0.02	56	45	36	33	31	26	60	49	39	35	35	33	60	53	43	38	39	39	68	55	45	39	42	43				
	175	0.04	59	40	40	38	37	31	64	54	44	41	41	38	69	58	47	43	45	44	71	60	49	44	48	48				
	225	0.06	62	53	43	42	42	35	67	57	47	44	46	41	71	61	50	47	50	48	74	63	52	48	52	52				
05	125	0.02	42	27	18	16	16	15	46	30	22	20	22	22	50	33	27	24	28	30	52	35	29	27	31	34				
	175	0.04	49	36	27	23	23	20	53	39	31	27	28	28	56	42	35	31	34	35	59	44	38	34	37	40				
	250	0.08	56	46	36	30	29	26	60	49	40	34	35	33	63	52	44	39	41	41	66	54	47	41	44	45				
	300	0.11	59	51	40	34	33	29	63	54	45	38	38	36	67	57	49	42	44	44	69	59	52	45	47	48				
	350	0.15	62	55	44	37	36	31	66	58	49	41	41	39	70	61	53	46	47	46	72	63	55	48	50	51				
06	175	0.03	54	46	32	23	20	14	57	50	37	29	25	19	61	54	42	34	29	24	63	56	46	37	32	26				
	225	0.06	56	50	35	27	24	18	59	53	41	32	29	23	63	57	46	37	33	28	65	60	49	40	36	31				
	300	0.10	58	53	39	30	28	23	61	57	45	35	33	28	65	61	50	41	37	33	67	63	53	44	40	36				
	350	0.14	59	55	41	32	20	26	62	59	47	37	35	31	66	63	52	42	40	36	68	65	55	45	42	39				
	400	0.18	60	57	43	33	32	28	63	61	49	39	37	33	67	65	54	44	42	38	69	67	57	47	44	41				
	450	0.22	61	58	45	35	34	30	64	62	50	40	38	35	68	66	55	45	43	40	70	68	59	48	46	43				
	500	0.28	61	60	46	36	36	32	65	64	52	41	40	37	69	67	57	47	45	42	71	70	60	50	48	45				
07	250	0.04	53	39	34	28	25	22	58	43	38	31	29	29	62	48	42	34	33	35	65	50	44	35	36	38				
	300	0.05	55	42	36	31	28	25	59	46	40	34	32	31	63	51	44	37	37	37	66	53	46	38	39	41				
	350	0.07	56	44	38	34	31	27	61	49	42	37	35	33	69	53	46	39	39	39	67	66	48	41	42	43				
	400	0.09	58	46	40	36	33	29	62	51	44	39	37	35	68	55	48	42	42	41	68	58	50	43	44	44				
	500	0.14	60	50	43	40	37	32	62	54	47	43	41	38	68	59	51	45	46	44	70	61	53	47	48	47				
	600	0.20	61	53	45	43	40	34	65	57	49	46	44	40	69	62	53	49	49	46	72	64	55	50	51	50				
	650	0.24	62	54	47	45	42	35	66	59	50	47	46	41	70	63	54	50	50	47	73	66	56	52	53	51				
08	350	0.04	54	40	35	30	27	23	57	45	39	33	31	29	60	49	43	36	35	35	62	52	46	38	37	39				
	400	0.05	56	42	37	32	29	25	59	47	41	35	33	31	62	51	45	38	37	37	63	54	48	40	39	41				
	450	0.06	57	44	38	34	31	27	60	48	42	37	35	33	63	53	47	40	39	39	65	56	49	42	41	43				
	500	0.08	58	45	39	36	33	29	61	50	44	39	37	35	64	54	48	42	41	41	66	57	51	43	43	45				
	600	0.11	60	48	42	39	36	31	63	52	46	42	40	38	66	57	51	45	44	44	68	60	53	46	46	47				
	700	0.16	62	50	44	41	39	34	65	55	48	44	43	40	68	59	53	47	46	46	70	62	55	49	49	50				
	800	0.20	64	52	46	43	41	36	67	57	50	46	45	42	70	61	54	49	49	48	71	64	57	51	51	52				
09	450	0.05	57	46	38	31	29	26	59	51	45	38	35	33	62	56	52	44	41	39	63	59	56	48	45	43				
	500	0.06	58	47	38	32	30	27	61	52	45	38	36	33	63	57	52	45	42	40	64	60	56	49	46	44				
	600	0.08	61	48	39	33	31	28	65	53	46	40	37	35	65	59	53	47	43	41	67	62	57	50	47	45				
	700	0.11	63	49	40	34	32	29	65	55	47	41	39	35	67	60	54	48	45	42	69	63	58	52	48	46				
	800	0.14	64	50	41	36	34	30	67	56	48	42	40	36	69	61	55	49	46	43	70	64	59	53	49	47				
	900	0.18	66	51	41	36	34	30	68	57	48	43	40	37	70	62	55	50	47	44	72	65	59	54	50	47				
	1000	0.22	67	52	42	37	35	31	69	57	49	44	41	38	72	63	56	51	47	44	73	66	60	55	51	48				
10	550	0.04	60	46	39	33	31	29	61	52	46	40	37	35	62	58	54	46	42	41	63	61	58	50	45	44				
	600	0.05	61	47	39	34	32	29	62	52	47	40	37	35	64	58	54	47	43	41	65	61	58	51	46	45				
	700	0.05	63	48	40	35	33	30	65	53	47	41	38	36	66	59	55	48	44	42	67	62	59	52	47	46				
	800	0.08	65	48	40	35	34	31	67	54	48	42	40	37	68	60	55	49	45	43	69	63	59	52	48	47				
	1000	0.12	68	50	41	37	36	33	70	55	49	43	41	39	71	61	56	50	47	45	72	64	60	54	50	48				
	1200	0.18	71	50	42	38	37	34	72	56	49	44	43	40	74	62	57	51	48	46	75	65	61	55	51	49				
12	1400	0.24	73	51	43	39	39	35	75	57	50	45	44	41	76	62	57	52	49	47	77	66	61	56	53	50				
	800	0.04	56	49	43	36	32	29	60	54	49	42	39	36	63	59	55	48	45	43	65	62	58	52	48	47				
	900	0.05	58	50	44	37	34	29	61	55	49	43	40	36	65	60	55	49	45	43	67	62	59	53	49	48				
	1000	0.07	60	50	44	38	35	30	63	55	50	44	40	37	66	60	56	50	46	44	68	63	60	54	49	48				
	1200	0.09	62	52	46	39	63	31	65	57	52	45	41	38	69	62	57	51	47	45	71	65	61	55	50	49				
	1500	0.15	65	53	47	41	37	32	69	58	53	47	43	39	72	63	59	53	48	46	74	66	63	56	52	50				
	1800	0.21	68	55	49	42	38	33	71	59	54	48	44	40	74	64	60	54	50	47	76	67	64	58	53	51				
2000	0.26	69	55	49	43	39	33	73	60	55	49	45	40	76	65	61	55	50	47	78	68	65	58	54	51					

See the following page for additional models.

Series: RSZO, RSZD, RSZM, RSZA

Radiated Sound Power Data

Inlet Size	CFM	Min ΔPs	Sound Power Octave Bands																											
			0.50 DPs							1.00 DPs							2.00 DPs							3.00 DPs						
			2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7				
14	1000	0.04	59	47	39	34	33	31	61	52	46	40	39	38	63	58	54	47	45	46	64	61	58	51	49	50				
	1200	0.05	63	48	40	35	35	32	65	54	47	42	41	40	66	59	55	49	47	47	68	62	59	52	51	51				
	1500	0.08	67	50	41	37	37	34	69	55	49	43	43	41	71	61	56	50	50	49	72	64	61	54	53	53				
	1800	0.12	71	51	42	38	39	35	73	57	50	45	45	43	75	62	57	52	51	50	76	66	62	56	55	54				
	2100	0.16	74	53	43	39	40	37	76	58	51	46	47	44	78	64	58	53	53	51	79	67	63	57	57	55				
	2400	0.21	77	54	44	40	42	38	79	59	52	47	48	45	80	65	59	54	54	52	82	68	63	58	58	56				
	3000	0.32	81	55	45	42	44	39	83	61	53	49	50	46	85	66	60	55	57	54	86	70	65	59	60	58				
16	1400	0.04	55	48	44	38	39	32	59	53	49	43	43	38	63	58	53	48	47	44	66	61	56	51	50	48				
	1600	0.05	57	49	45	39	40	32	61	54	50	44	44	40	65	59	54	49	49	46	68	62	57	52	51	49				
	2000	0.08	59	51	47	41	42	36	63	56	52	46	46	42	69	61	56	52	50	48	70	64	59	54	53	52				
	2400	0.11	61	52	49	43	44	38	66	58	53	48	48	44	70	63	58	53	52	50	73	66	61	56	54	54				
	2800	0.15	63	54	50	45	45	40	68	59	55	50	49	46	72	64	59	55	53	52	74	67	62	58	56	56				
	3200	0.20	65	55	51	46	46	41	69	60	56	51	50	47	73	65	60	56	54	54	76	68	63	59	57	57				
	4000	0.32	68	57	53	48	48	44	72	62	58	53	52	50	76	67	62	58	56	56	79	70	65	61	59	60				
22	3000	0.02	61	57	56	51	46	42	65	61	61	56	50	45	69	65	65	61	54	48	71	67	68	64	56	50				
	3500	0.03	64	59	58	52	48	44	67	63	62	57	52	47	71	67	67	63	56	50	73	69	70	66	58	52				
	4000	0.04	66	61	60	54	50	45	70	65	64	59	54	49	73	69	69	64	58	52	76	71	71	67	60	54				
	5000	0.06	70	64	62	56	53	48	73	68	67	61	57	52	77	72	71	67	61	55	79	74	74	70	63	57				
	6000	0.08	73	67	64	58	56	51	76	71	69	63	60	54	80	74	73	69	63	57	82	77	76	72	66	59				
	7000	0.11	75	69	66	60	58	53	79	73	71	65	62	56	83	77	75	70	65	59	85	79	78	73	68	61				
	8000	0.14	77	71	68	62	60	55	81	75	72	67	63	58	85	78	77	72	67	61	87	81	80	75	69	63				

ARI Certification Points

Inlet Size	Rated CFM	Min. ΔPs	Sound Power @ 1.5Ps						
			2	3	4	5	6	7	
04	150	0.05	65	54	44	40	41	39	
05	250	0.10	62	51	43	37	38	38	
06	400	0.18	66	63	52	42	40	36	
07	550	0.17	67	58	50	46	45	43	
08	700	0.16	67	57	51	46	45	44	
09	900	0.18	69	60	52	47	44	41	
10	1100	0.15	72	59	53	48	45	43	
12	1600	0.17	71	62	57	51	46	43	
14	2100	0.16	77	61	55	50	50	48	
16	2800	0.16	70	62	57	53	52	50	
22	5300	0.06	76	71	70	65	60	54	

Adjustments for Optional Attenuators*

Inlet Size	Octave Bands						
	2	3	4	5	6	7	
04, 05, 06	2	1	5	13	12	8	
07, 08	2	2	5	12	11	8	
09, 10	1	2	4	10	9	7	
12	1	2	4	9	7	6	
14	1	2	3	8	6	5	
16	1	1	3	8	6	5	
22	1	1	3	8	6	5	

Select the desired unit size and subtract the value shown under each octave band above from the Radiated Sound Power data shown above. The calculated values are then used to determine the discharge NC.

* Based on Ch. 42 of ASHRAE 1991 HVAC Applications Handbook.

- ΔPs is the difference in static pressure from the inlet to the discharge.
- Sound power levels are shown in decibels, re. 10⁻¹² watts.
- Radiated sound power is the noise transmitted through the casing walls.
- All sound data is based on test conducted in accordance with ARI 880-94.

Series: RSZ-04 thru 12 Hot Water Performance Data

RSZ-04; 05 & 06

ROWS	SELECTED	HEAD	AIRFLOW IN CFM									
			CIRCUITS	GPM	LOSS	50	100	150	200	250	300	350
1 ROW Single CIRCUIT	1.0	0.5		4.2	5.9	7.0	7.7	8.6	9.4	10.1	10.6	11.2
	2.0	1.69		4.4	6.3	7.5	8.3	9.4	10.3	11.1	11.8	12.5
	4.0	5.77		4.4	6.5	7.8	8.7	98.0	10.9	11.8	12.6	13.4
	5.0	8.59		4.5	6.5	7.8	8.8	9.9	11.0	11.9	12.8	13.6
	AIR PRESS LOSS			0.01	0.01	0.02	0.03	0.05	0.07	0.09	0.12	0.14
2 ROW MULTI- CIRCUIT	1.0	0.2		5.3	8.6	11.0	12.9	14.4	15.6	16.7	17.6	18.4
	3.0	1.7		5.5	9.4	12.5	15.0	17.1	19.0	20.7	22.2	23.5
	5.0	4.1		5.6	9.6	12.8	15.5	17.9	19.9	21.8	23.5	25.0
	7.0	7.4		5.6	9.7	13.0	15.8	18.2	20.4	22.3	24.1	25.7
	AIR PRESS LOSS			0.01	0.02	0.04	0.07	0.10	0.13	0.18	0.22	0.27

RSZ-07 & 08

ROWS	SELECTED	HEAD	AIRFLOW IN CFM									
			CIRCUITS	GPM	LOSS	100	200	300	400	500	600	700
1 ROW Single CIRCUIT	1.0	0.69		6.9	9.2	10.7	12.2	13.4	14.5	15.3	16.1	16.8
	2.0	2.34		7.2	9.9	11.7	13.6	15.1	16.4	17.6	18.6	19.5
	3.0	4.77		7.4	10.2	12.1	14.1	15.8	17.2	18.5	19.6	20.7
	3.0	7.96		7.4	10.3	12.3	14.4	16.1	17.7	19.0	20.2	21.3
	AIR PRESS LOSS			0.01	0.02	0.04	0.07	0.10	0.14	0.19	0.24	0.30
2 ROW MULTI- CIRCUIT	1.0	0.3		9.4	14.3	17.6	20.1	21.9	23.4	24.7	25.7	26.6
	3.0	2.3		10.1	16.5	21.2	25.0	28.1	30.8	33.1	35.1	37.0
	5.0	5.7		10.3	17.0	22.2	26.3	29.9	32.9	35.6	38.0	40.2
	7.0	10.3		10.3	17.2	22.6	27.0	30.7	34.0	36.9	39.5	41.8
	AIR PRESS LOSS			0.01	0.04	0.08	0.13	0.20	0.27	0.36	0.46	0.56

RSZ-09 & 10

ROWS	SELECTED	HEAD	AIRFLOW IN CFM									
			CIRCUITS	GPM	LOSS	200	300	400	500	600	700	800
1 ROW MULTI- CIRCUIT	2.0	0.68		11.7	13.8	15.3	17.0	18.5	19.8	21.0	22.0	23.0
	3.0	1.4		12.1	14.4	16.0	18.0	19.7	21.2	22.5	23.7	24.8
	5.0	3.41		12.5	15.0	16.7	18.9	20.8	22.4	23.9	25.3	26.6
	6.0	4.72		12.5	15.1	16.9	19.1	21.1	22.8	24.3	25.8	27.1
	AIR PRESS LOSS			0.01	0.02	0.04	0.05	0.07	0.10	0.12	0.15	0.18
2 ROW MULTI- CIRCUIT	2.0	0.7		17.4	22.4	26.3	29.5	32.1	34.4	36.3	38.1	39.6
	4.0	2.2		18.5	24.3	29.0	33.0	36.5	39.6	42.3	44.7	46.9
	6.0	4.4		18.8	25.0	30.1	34.5	38.3	41.7	44.8	47.6	50.1
	8.0	7.4		19.0	25.4	30.7	35.3	39.3	42.9	46.2	49.2	51.9
	AIR PRESS LOSS			0.02	0.04	0.07	0.10	0.14	0.18	0.23	0.29	0.35

RSZ-12

ROWS	SELECTED	HEAD	AIRFLOW IN CFM									
			CIRCUITS	GPM	LOSS	300	500	700	900	1100	1300	1500
1 ROW MULTI- CIRCUIT	2.0	0.88		16.4	19.9	23.0	25.7	28.0	29.9	31.5	32.9	34.2
	3.0	1.81		17.1	21.0	24.5	27.6	30.2	32.5	34.4	36.2	37.7
	5.0	4.4		17.8	22.0	25.9	29.4	32.4	35.0	37.3	39.4	41.3
	6.0	6.08		17.9	22.3	26.3	29.9	33.0	35.8	38.2	40.3	42.3
	AIR PRESS LOSS			0.01	0.03	0.06	0.09	0.12	0.17	0.21	0.27	0.33
2 ROW MULTI- CIRCUIT	2.0	0.8		24.8	33.2	39.2	43.7	47.3	50.3	52.8	54.9	56.7
	4.0	2.8		26.7	37.0	44.9	51.2	56.5	60.9	64.8	68.1	71.2
	6.0	5.6		27.4	38.5	47.2	54.3	60.3	65.5	70.1	74.1	77.8
	8.0	9.3		27.7	39.3	48.5	56.1	62.5	68.2	73.1	77.6	81.6
	AIR PRESS LOSS			0.02	0.06	0.11	0.16	0.23	0.32	0.41	0.51	0.62

Series: RSZ-14 thru 22 Hot Water Performance Data

RSZ-14

ROWS	SELECTED	HEAD	AIRFLOW IN CFM								
			CIRCUITS	GPM	LOSS	400	700	1000	1300	1600	1900
1 ROW MULTI- CIRCUIT	2.0	0.45	21.9	26.8	30.7	34.2	36.9	39.2	41.1	42.8	44.3
	3.0	0.95	23.2	28.8	33.4	37.5	40.9	43.8	46.3	48.4	50.3
	5.0	2.31	24.3	30.6	36.0	40.9	45.0	48.5	51.6	54.3	56.7
	6.0	3.17	24.5	31.1	36.7	41.8	46.1	49.8	53.1	56.0	58.6
	AIR PRESS LOSS		0.01	0.03	0.05	0.08	0.12	0.17	0.21	0.27	0.33
2 ROW MULTI- CIRCUIT	2.0	0.6	32.5	43.9	51.4	56.8	60.9	64.2	66.8	69.1	71.0
	4.0	1.9	35.6	50.5	61.3	69.7	76.4	82.0	86.8	90.9	94.5
	6.0	3.9	36.8	53.2	65.5	75.3	83.4	90.3	96.3	101.5	106.1
	8.0	6.4	37.0	54.6	67.8	78.5	87.4	95.1	101.8	107.8	113.1
	AIR PRESS LOSS		0.02	0.05	0.1	0.16	0.23	0.31	0.41	0.51	0.63

RSZ-16

ROWS	SELECTED	HEAD	AIRFLOW IN CFM								
			CIRCUITS	GPM	LOSS	600	1000	1400	1800	2200	2600
1 ROW MULTI- CIRCUIT	3.0	0.98	30.1	36.2	42.1	46.8	50.6	53.8	56.5	58.9	61.0
	5.0	2.44	31.9	38.9	46.0	51.7	56.4	60.4	63.9	67.1	69.8
	7.0	4.38	32.7	40.3	47.9	54.1	59.4	63.9	67.9	71.4	74.6
	9.0	6.83	33.2	41.1	49.1	55.6	61.2	66.0	70.3	74.1	77.5
	AIR PRESS LOSS		0.02	0.04	0.07	0.11	0.16	0.21	0.27	0.34	0.41
2 ROW MULTI- CIRCUIT	3.0	0.5	45.4	59.2	68.5	75.3	80.7	85.0	88.5	91.5	94.1
	5.0	1.3	49.1	66.1	78.4	87.9	95.5	101.9	107.2	111.9	115.9
	7.0	2.3	50.8	69.6	83.6	94.6	103.7	111.4	118.0	123.7	128.8
	9.0	3.5	51.8	71.7	86.8	98.9	108.9	117.5	125.0	131.5	137.3
	AIR PRESS LOSS		0.03	0.07	0.13	0.21	0.3	0.4	0.51	0.64	0.78

RSZ-22

ROWS	SELECTED	HEAD	AIRFLOW IN CFM								
			CIRCUITS	GPM	LOSS	600	1200	1800	2400	3000	3600
1 ROW MULTI- CIRCUIT	3.0	1.15	38.0	49.5	57.4	64.5	70.1	74.7	78.5	81.8	84.7
	5.0	2.9	40.3	53.8	63.4	72.4	79.8	85.9	91.1	95.7	99.7
	7.0	5.2	41.3	55.9	66.5	76.5	84.8	91.8	97.8	103.2	107.9
	9.0	8.08	41.9	57.1	68.3	79.0	87.8	95.4	102.0	107.9	113.1
	AIR PRESS LOSS		0.01	0.02	0.05	0.08	0.12	0.17	0.22	0.27	0.34
2 ROW MULTI- CIRCUIT	3.0	0.6	52.2	76.1	90.4	100.1	107.2	112.7	117.0	120.6	123.6
	5.0	1.4	55.9	85.8	105.6	120.0	131.2	140.1	147.5	153.7	159.0
	7.0	2.5	57.6	90.6	113.5	130.8	144.6	155.9	165.4	173.5	180.6
	9.0	3.9	58.6	93.5	118.4	137.6	153.2	166.1	177.2	186.7	195.1
	AIR PRESS LOSS		0.01	0.04	0.09	0.15	0.23	0.31	0.41	0.52	0.64

Notes:

- Hot water coil performance data shown above are MBH capacities.
- Performance is based on 180 deg. EWT and 55 deg. EAT.
- Water Head Loss is in feet of water.
- Air Pressure Loss is the air pressure loss of the coil only.
- If GPM falls below the minimum, laminar flow may occur.
- Water coils are not suitable for use with steam, consult factory.

Formulas:

$$\text{BTU/Hr} = \text{CFM} \times 1.08 \times [\text{LAT-EAT}]$$

$$\text{BTU/Hr} = \text{GPM} \times 500 \times [\text{EWT-LWT}]$$

$$\text{GPM} = \frac{\text{BTU/Hr}}{500 \times [\text{EWT-LWT}]}$$

Performance tables are based on a temperature difference of 125 degrees difference between entering air temperature and entering water temperature. For capacity at other conditions multiply the MBH from the tables by the factors below.

Correction Factors for Different Entering Conditions:

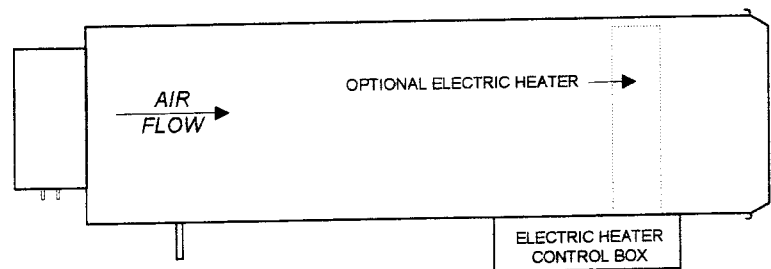
TD	50	60	70.0	80.0	90.0	100.0	110.0	125.0	140.0	150.0
FACTOR	0.40	0.48	0.56	0.64	0.72	0.80	0.88	1.00	1.12	1.20

Options:

- ◆ Computerized coil selections for more specific performance.
- ◆ Fin spacing selections for more capacity, consult the factory.
- ◆ Coils with 3 & 4 rows and various fin spacing are available.

Series: RSZ-04 thru 22 Terminal Units with Attenuator

Series: RSZ Terminal Units require extended plenum attenuator sections to that serves as the housing for the UL electric heater. A diffuser plate is utilized when required to minimize stratification. The heating elements are designed for use with VAV systems and de-rated to prevent nuisance tripping of the thermal cut-out internal to the heater.



TOP VIEW OF RSZ WITH ELECTRIC HEAT

Recommended Electric Coil Selection Data:

MODEL SIZE	HEATING CFM-RANGE	AVAILABLE STAGES	MAXIMUM KW AVAILABLE								
			115/1/60	208/1/60	240/1/60	277/1/60	460/1/60	208/3/60	240/3/60	480/3/60	
04	125-225	1,2 or 3	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
05	175-350	1,2 or 3	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
06	250-500	1,2 or 3	3.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
07	325-650	1,2 or 3	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	10.0
08	450-900	1,2 or 3	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	10.0
09	525-1050	1,2 or 3	5.0	9.0	9.0	13.0	13.0	13.0	13.0	13.0	14.5
10	700-1400	1,2 or 3	5.0	9.0	9.0	13.0	13.0	13.0	13.0	13.0	14.5
12	1000-2000	1,2 or 3	5.0	9.0	9.0	13.0	16.0	16.0	16.0	16.0	34.0
14	1500-3000	1,2 or 3	5.0	9.0	9.0	13.0	16.0	16.0	16.0	16.0	38.5
16	2000-4000	1,2 or 3	5.0	9.0	9.0	13.0	16.0	16.0	16.0	16.0	38.5
22	4000-8000	1,2 or 3	5.0	9.0	9.0	13.0	16.0	16.0	16.0	16.0	38.5

Additional Heater Selections May Be Obtained By Contacting The Factory.

Capacities in KW are normally selected based on the RSZ Terminal Unit operating at 50% of the maximum rated CFM. The unit discharge temperature should be limited to 120 degrees F.

Reduce the KW as the unit CFM is reduced to hold the maximum 120 degree discharge temperature for safe operation.

Technical Information:

The above Table provides a quick selection of suggested KW based on unit size and CFM.

Example:

Select a Model RSZ-10 for 800 CFM with 10.0 KW for use with on 460/3/60 from the above Table.

The Temperature Rise is determined as follows: $TD = \frac{KW \times 3160}{CFM}$ or $TD = \frac{10.0 \times 3160}{800} = 39.5$ TD

An unknown KW may be determined as follows: $KW = \frac{CFM \times TD}{3160}$ or $KW = \frac{800 \times 39.5}{3160} = 10$ KW

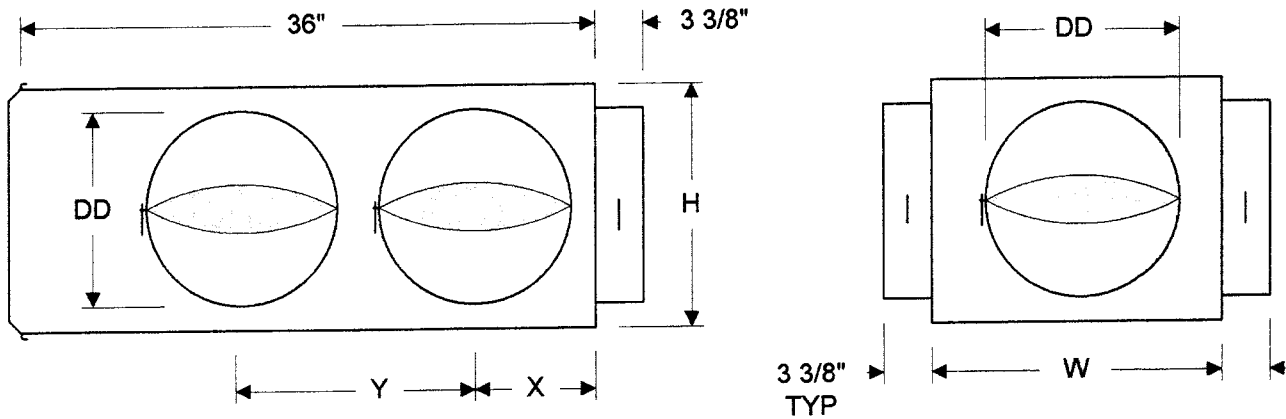
Standard Components:

- ◆ UL and CSA Listed Heaters
- ◆ High and Low Voltage Terminal Blocks
- ◆ Machine Crimped Terminals
- ◆ Extended Terminals into Air Stream
- ◆ Insulated Terminal Box to Prevent Sweating
- ◆ De-Energizing Contactors per stage
- ◆ De-rated Nickel Chromium Heating Elements
- ◆ Primary and Secondary Thermal Overload Protection
- ◆ Fusing in Accordance with NEC and UL
- ◆ Airflow Switch in Accordance with UL

Optional Accessories:

- 24 Volt Transformers, CL. 1 & CL. 2
- Manual Reset Thermal Cut-Out
- Stainless Steel Terminals
- Door Interlocking Disconnect
- Dust Tight Control Enclosure
- Main Supply Fuses
- Transformer Fuses
- Pilot Lights
- Mercury Contactors
- Pneumatic Controls

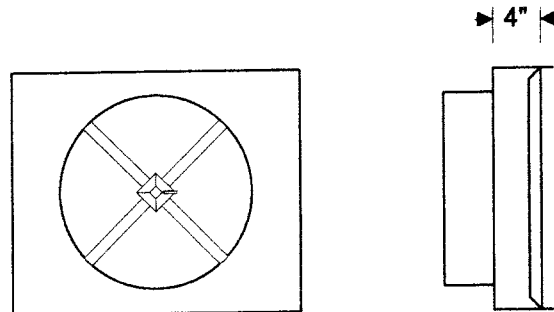
MULTI-OUTLET ATTENUATOR



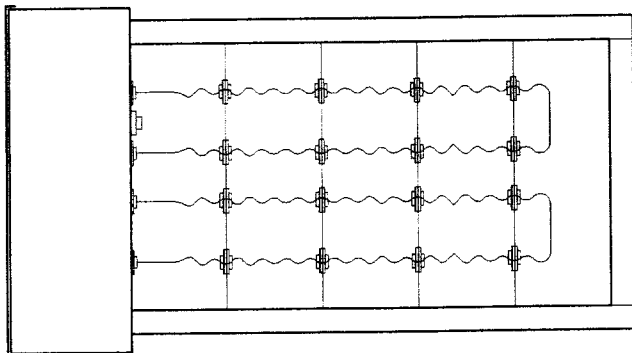
MULTI-OUTLET DIMENSIONS

MODEL	MAX	DIMENSIONS IN INCHES				
SIZE	OUTLETS	W	H	DD	X	Y
04,05,06	2	12	8	5 7/8	7 3/8	NA
07,08	3	12	10	7 7/8	7 3/8	NA
09,10	3	14	12 1/2	7 7/8	7 3/8	NA
12	4	16	15	7 7/8	7 3/8	14
14	4	20	18	9 7/8	7 3/8"	14
16	4	24	18	9 7/8	7 3/8"	14
22	4	38	18	9 7/8	7 3/8"	14

OUTLET TO MATCH INLET (RSZ-04 thru 16)



Electric Heating Coils



HEATER SPECIFICATIONS

Casing and control enclosure are constructed of heavy gauge corrosion resistant steel. The frame rugged frame is secured to the control enclosure with corrosion resistant fasteners.

Heating element are supported by a corrosion resistant heavy gauge wire rack. The unique design allows for complete air flow around the high quality moisture resistant ceramic insulators providing a low static pressure.




The heater elements are constructed from a high quality, nickel chrome alloy wire and welded to corrosion resistant terminals to insure maximum reliability and long life.

Primary and secondary thermal overload protection is standard on all heaters. The low and high voltage areas are contained on individual terminal boards, properly identified and separated for safety. Magnetic contactors and other individual components are UL and CSA listed for safety.

UL FILE E 33341 CSA FILE LR 20609

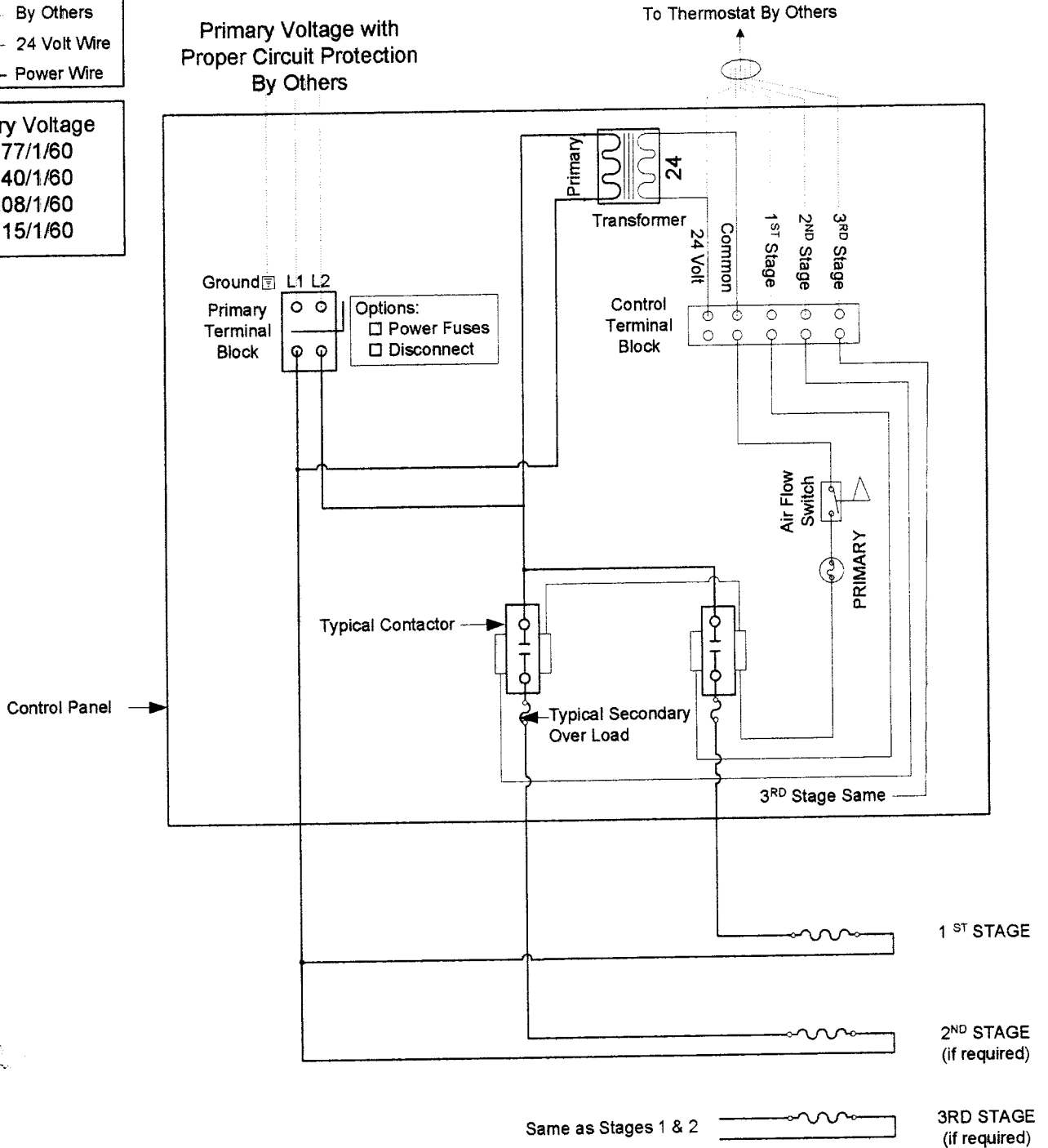
SZR-04 thru 22 1 Phase Wiring Diagram

LEGEND

	By Others
	24 Volt Wire
	Power Wire

Primary Voltage

- 277/1/60
- 240/1/60
- 208/1/60
- 115/1/60






Notes:

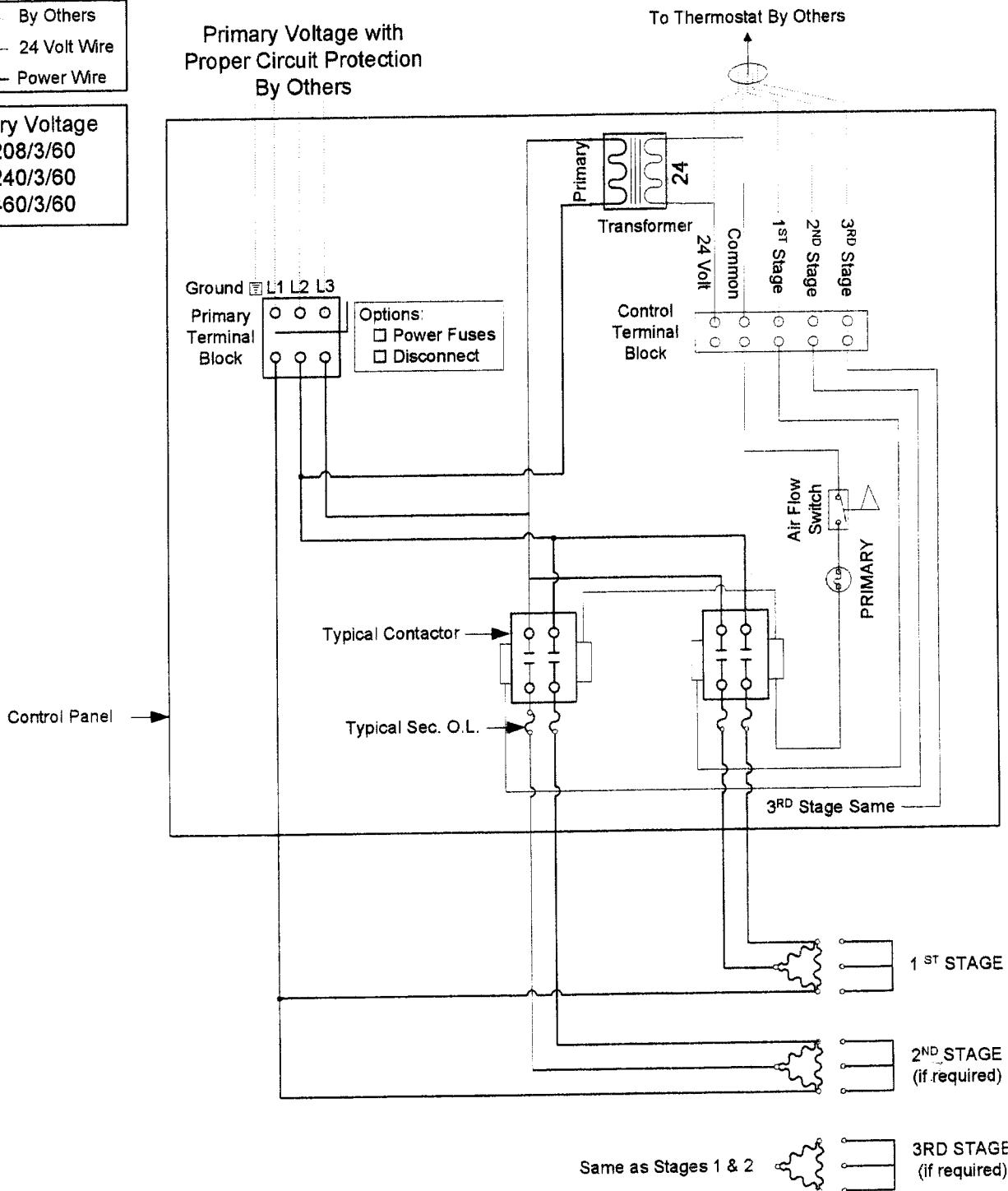
- 1) Thermostat, other control devices and interlock devices by controls sub contractor.

SZR-04 thru 22 3 Phase Wiring Diagram

LEGEND

	By Others
	24 Volt Wire
	Power Wire

Primary Voltage	
<input type="checkbox"/>	208/3/60
<input type="checkbox"/>	240/3/60
<input type="checkbox"/>	460/3/60

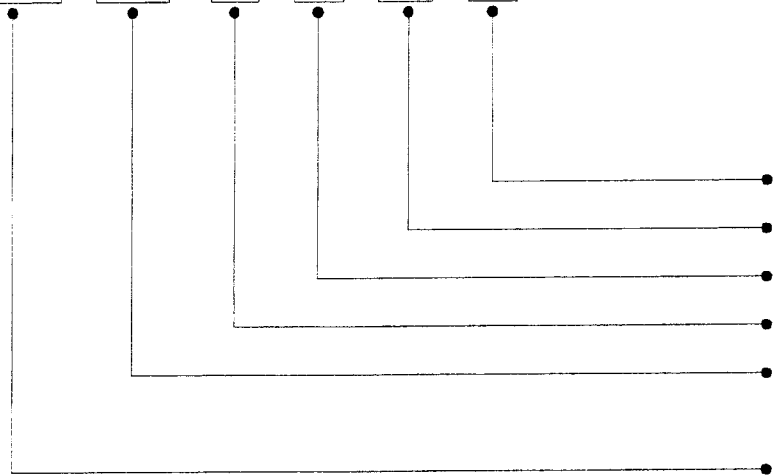


Notes:
 1) Thermostat, other control devices and interlock devices by controls sub contractor.

COMPLETE ORDERING INFORMATION

Terminals with Hot Water Reheat or No Heat:

RSZA - 10 - 1 - 3 - 2 - R

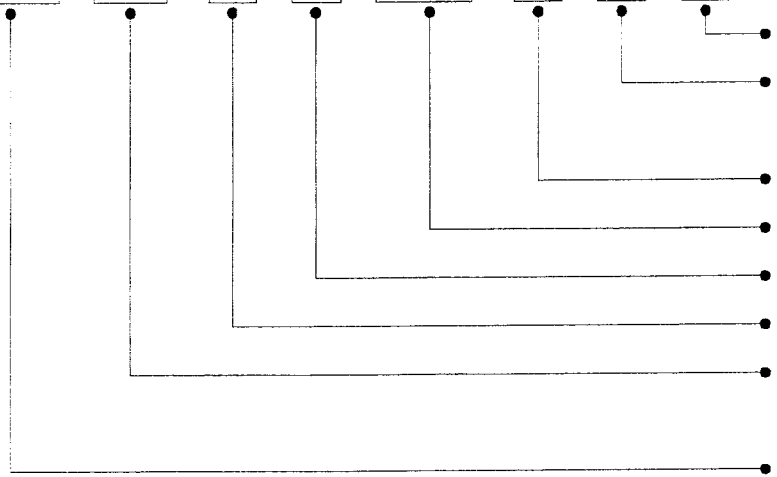


- R = Right Hand; L = Left Hand
- 0 = No Coil or 1, 2, 3 & 4 = Rows
- 0=Base Unit; 1=Attenuator
- Sensor: 1= Flow-Cross; 0= None
- Model Size 04 thru 22"

- Model No: RSZO
 RSZA
 RSZD
 RSZE
 RSZS
 RSZM

Terminals with Electric Heaters:

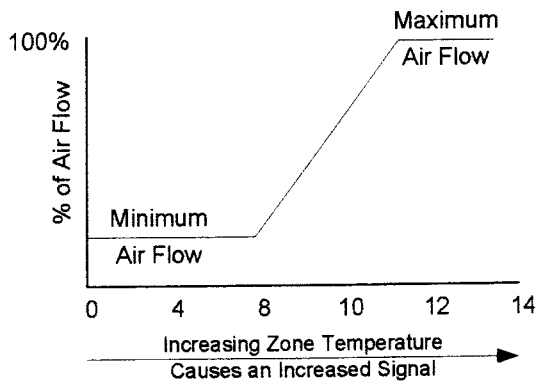
RSZA - 10 - 1 - 1 - 12.5 - 2 - A - R



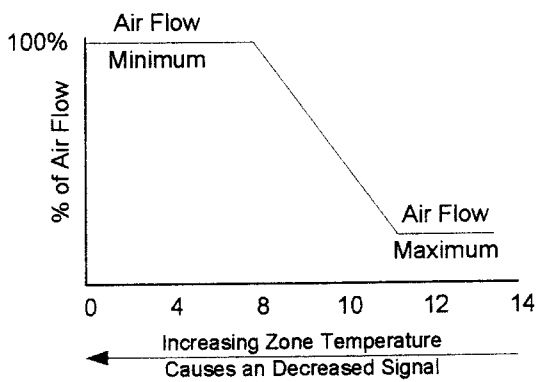
- R = Right Hand; L = Left Hand
- A=460/3; B=230/3; C=208/3;
D=230/1; E=208/1; F=115/1
- Heater Stages
- Heater KW
- 0=Base Unit; 1=Attenuator
- Sensor: 1= Flow-Cross; 0= None
- Model Size 04 thru 22"

- Model No: RSZO
 RSZA
 RSZC
 RSZD
 RSZE
 RSZS
 RSZM

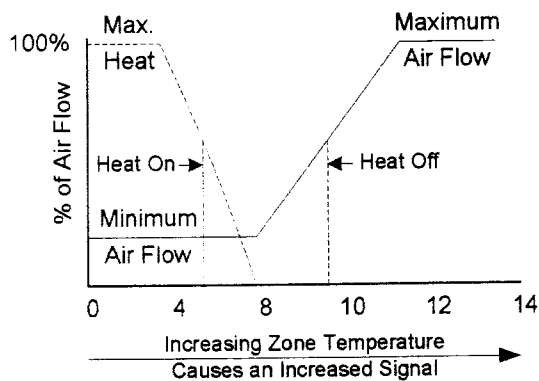
Basic Control Sequences



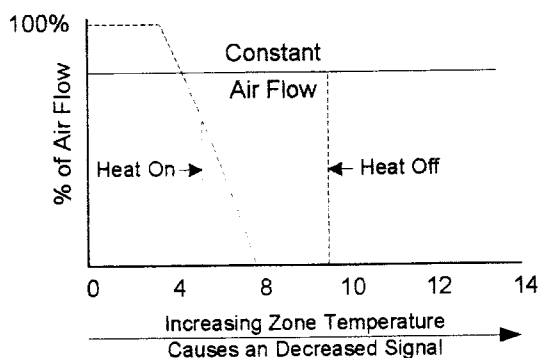
Cooling Only-Pressure Independent/Normally Open
As the zone temperature increases, the signal to the SZR Terminal Unit increases thus driving the terminal unit to maximum open position providing the maximum airflow to the space. The thermostat will modulate the terminal unit between the max and min set points thus maintaining space temperature without reheat.



Cooling Only-Pressure Independent/Normally Closed
As the zone temperature increases, the signal to the SZR Terminal Unit decreased thus driving the terminal unit to maximum open position providing the maximum airflow to the space. The thermostat will modulate the terminal unit between the max and min set points thus maintaining space temperature without reheat.



Cooling/Reheat-Pressure Independent/Normally Open
As the zone temperature increases, the signal to the SZR Terminal Unit increased thus driving the terminal unit to maximum open position providing the maximum airflow to the space. As the zone temperature falls the terminal unit moves to the minimum position and the hot water valve is opened to provide zone reheat. As before the thermostat will modulate the terminal unit between the max and min set points thus maintaining space temperature with reheat.



Cooling/Reheat-Pressure Independent/Normally Open
As the zone temperature increases, the signal to the SZR Terminal Unit volume is unchanged thus providing the space with constant airflow. The thermostat will modulate the heating between the set points thus maintaining space temperature.

Note: See the Air Zone Control Manual for detailed control diagrams for Pneumatic, Electric and Electronic.